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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/759,151

01/16/2001

Yat-Tung Lam

MP0071

2849

26703

7590

08/09/2006

HARNESS, DICKEY & PIERCE P.L.C.
5445 CORPORATE DRIVE
SUITE 400
TROY, MI 48098

EXAMINER

DANG, KHANH

ART UNIT

PAPER NUMBER

2111

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/759,151

Applicant(s)

LAM ET AL.

Examiner

Justin I. King

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 377-426 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 407-426 is/are allowed.
- 6) ☒ Claim(s) 377-406 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 377-406 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 377, 387, and 397 recites the limitation "serial control data gate signal" in the last line. There is insufficient antecedent basis for this limitation in the claim. Claims 378-386, 388-396, and 398-406 are rejected because they incorporate the parent claims' limitations.

Allowable Subject Matter

3. Claims 377-406 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

4. Claims 407-426 are allowed.

5. The following is a statement of reasons for the indication of allowable subject matter:

Referring to claim 377: The prior arts on record do not explicitly disclose or teach the claimed serial control data circuit for controlling the R/W operations of a hard disk drive. The Specification, as originally presented, discloses that the claimed serial control data circuit is one of the five signals in addition to the convention control signal (Specification, paragraph 59). The

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Specification further discloses that the claimed serial control data circuit transfers important control information from the hard disk controller to R/W channel; and each serial transfer contains one END bit to control whether the transfer is completed or an additional transfer will follow with the practice of splitting (Specification, paragraph 70).

Referring to claims 378-386: Claims incorporate the parent claim's limitations, which include the allowable subject matter as stated above.

Referring to claim 387: The prior arts on record do not explicitly disclose or teach the claimed serial control data circuit for controlling the R/W operations of a hard disk drive. The Specification, as originally presented, discloses that the claimed serial control data circuit is one of the five signals in addition to the convention control signal (Specification, paragraph 59). The Specification further discloses that the claimed serial control data circuit transfers important control information from the hard disk controller to R/W channel; and each serial transfer contains one END bit to control whether the transfer is completed or an additional transfer will follow with the practice of splitting (Specification, paragraph 70).

Referring to claims 388-396: Claims incorporate the parent claim's limitations, which include the allowable subject matter as stated above.

Referring to claim 397: The prior arts on record do not explicitly disclose or teach the claimed serial control data circuit for controlling the R/W operations of a hard disk drive. The Specification, as originally presented, discloses that the claimed serial control data circuit is one of the five signals in addition to the convention control signal (Specification, paragraph 59). The Specification further discloses that the claimed serial control data circuit transfers important control information from the hard disk controller to R/W channel; and each serial transfer

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contains one END bit to control whether the transfer is completed or an additional transfer will follow with the practice of splitting (Specification, paragraph 70).

Referring to claims 398-406: Claims incorporate the parent claim's limitations, which include the allowable subject matter as stated above.

Referring to claim 407: The prior arts on record do not explicitly disclose or teach the claimed serial control receiver circuit for controlling the R/W operations of a hard disk drive. The Specification, as originally presented, discloses that the claimed serial control receiver circuit is one of the five signals in addition to the convention control signal (Specification, paragraph 59). The Specification further discloses that the claimed serial control receiver circuit transfers important control information from the hard disk controller to R/W channel; and each serial transfer contains one END bit to control whether the transfer is completed or an additional transfer will follow with the practice of splitting (Specification, paragraph 70).

Referring to claims 408-416: Claims incorporate the parent claim's limitations, which include the allowable subject matter as stated above.

Referring to claim 417: The prior arts on record do not explicitly disclose or teach the claimed serial control receiver circuit for controlling the R/W operations of a hard disk drive. The Specification, as originally presented, discloses that the claimed serial control receiver circuit is one of the five signals in addition to the convention control signal (Specification, paragraph 59). The Specification further discloses that the claimed serial control receiver circuit transfers important control information from the hard disk controller to R/W channel; and each serial transfer contains one END bit to control whether the transfer is completed or an additional transfer will follow with the practice of splitting (Specification, paragraph 70).

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Referring to claims 418-426: Claims incorporate the parent claim's limitations, which include the allowable subject matter as stated above.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

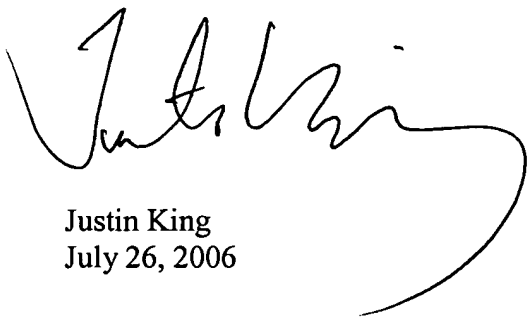
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin I. King whose telephone number is 571-272-3628. The examiner can normally be reached on Monday through Friday, 9:00 am to 5:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 571-272-3632 or on the central telephone number, (571) 272-2100. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

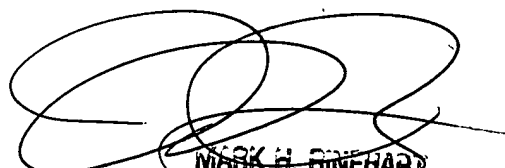
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lastly, paper copies of cited U.S. patents and U.S. patent application publications will cease to be mailed to applicants with Office actions as of June 2004. Paper copies of foreign patents and non-patent literature will continue to be included with office actions. These cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site (www.uspto.gov), from the Office of Public Records and from commercial sources. Applicants are referred to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197 for information on this policy. Requests to restart a period for response due to a missing U.S. patent or patent application publications will not be granted.



Justin King
July 26, 2006



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